

# W5YI REPORT

Up to the minute news from the worlds of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

## Dits & Bits

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### ★ In This Issue ★

Written Ham Test Credit Delayed  
FCC Cautions on "Renewal Fees"  
On K.C. Repeater Coordination  
Ham/Commercial Satellite Lashups  
Ham Ethics Committee Coming?  
Ham Involvement Pan Am Games  
Amateur Call Signs Issued to 12/1  
November Ham Licensing Statistics  
Ham Question Pool Assistance  
"Consumer Radio Service" Update  
OSCAR Archives Created  
Ham Test Generation Software  
"New World of Amateur Radio"  
and much, much more!



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## Written Examination Credit Delayed

The FCC has notified VEC's to postpone allowing examination credit for all amateur operator written examination elements until approximately January 15th. Gettysburg's Larry Weikert, Chief of the General Radio Branch notified VEC's by telephone of the delay on December 18th - three days after the provisions of PR Docket No. 86-63 were to have gone into effect.

Weikert said the new rules allowing VE's to administer written tests (and to issue a one year credit certificate if the required telegraphy examination was failed) "were to have been effective December 15, 1986, but were contingent upon Office of Management and Budget approval of the required revisions to FCC Form 610. OMB has not approved the form yet, therefore the rules can not be effective. The instructions to VEC's at this point are not valid." I asked how we were to handle any examinations where written exam credit had already been given. "You will have to fight with D.C.," he said. We placed a call to Washington, but as of press time, this matter has not yet been resolved.

The "Paperwork Reduction Act of 1980" requires OMB review and clearance on all public information collection activities. Weikert noted "it normally takes 60 days to approve new government forms." A November 20th FCC Public Notice asks for public comment on the new Application for Amateur

Radio Station and/or Operator License (FCC Form 610). It lists the "Estimated Annual Burden" as "118,750 Responses, 9,856 Hours."

The newly revised FCC Form 610 is not the only amateur radio form being considered by the Office of Management and Budget. A December 9th Public Notice confusingly notifies of a new Amateur Radio Operator/Station license "extension." This could be connected with the proposed Novice Enhancement proceeding. The "Estimated Annual Burden" on this is listed in the Notice as "40,000 Record-keepers, 40 Hours." It could be something else!

### HOUSEHOLD MEMBER HAM OPERATION....

Hearsay has it that the FCC may authorize family members to operate ham radio under the authority of the amateur's operator/station license. While this is probably "groundless gossip", the Commission's Office of Plans and Policy did indeed make this recommendation as part of their Working Paper #20 released this past August. Here is a quote from Page 85 of the report written by FCC researcher Jim McNally, (and amateur WB3APV.)

"The Commission may wish to inquire into the feasibility of permitting extensive personal communications ...with members of the household of a licensed amateur operator



January 1, 1987

being permitted to operate that amateur's equipment for home-to-mobile (or portable) communications, even if the licensed operator is not present or not a party to the conversation. All such communications would be identified by the call sign of the authorized amateur operator, who would have ultimate responsibility for proper use of the station. Interstation communications by such unlicensed operators need not be permitted, though there may be cases (particularly in emergencies) where they may be desirable. The operating discipline that is characteristic of the ARS may be sufficient to minimize abusive operation.

The cost associated with this approach is a potential shift away from the experimental/instructional communications of the ARS to more expedient communications, or purely recreational communications. Nevertheless, such a change in the fundamental nature of the ARS would still be in the hands of the amateurs who, in charge of this communications activity by members of their households, would be able to initiate appropriate action needed to maximize the overall value of their service (e.g., such type of operation might be confined to less desirable frequency bands), or cause such operations to be discontinued if significant problems developed."

### FCC FORM 610 REVISION....

We also heard a rumor that the new FCC Form 610 provided for two spaces in Section II for VE's to sign as Novice Class examiners. I asked Weikert about this. Although denying that this was the reason for the delay, he did confirm that "Yes, we do have a design in for that in case it is approved." The ARRL has asked the FCC to require two General Class and higher VE's to examine candidates for any new "Enhanced Novice" class.

It could be that two FCC Form 610 revisions were designed. One providing blank spaces for VE's to show written examination credit (Line "B" of the Volunteer Examiner Team Report - front top section of the 610) and another accommodating two signatures for VE's certifying Novices. Possible OMB does not want to approve two different Form 610

versions when only one approval would suffice next month.

Weikert said that the only revised FCC Form 610's that he has seen, "is what I have made. If you want a copy, you will have to go through our Washington office." There are other minor "housekeeping" changes on the new application form. The question regarding failed examinations has been deleted, as has the box where a VE checks the new class of license opposite lines 2C and 2D. (This is already provided for as part of the VE Team Report.) A provision is also being made for a VEC validation stamp.

Larry Weikert also said that they were running behind on processing amateur licenses. "...about eight weeks from the time that we receive the application." This means you can expect approximately a 10 to 12 week wait for your upgrade license to arrive from the date of examination since it takes a minimum of a couple of weeks for the application to go through the VE/VEC system before your application gets to Gettysburg.

Larry said he had three people working strictly on amateur licensing and one passed away in September. "We don't know if we are going to replace that person or not. With the holidays, vacations and all, we won't catch up until after the first of the year."

### FCC CAUTIONS HAMS ABOUT RENEWAL FEES

The FCC released a Public Notice (dated December 16, 1986) cautioning licensees in the Amateur Radio Service that the official-looking notices being sent to amateur operators from "Federal Licensing, J.V., Amateur Radio Service Division" are from a firm that is not in any way affiliated with the FCC.

According to several complaints received by the FCC's Private Radio Bureau, this firm apparently sends notices to amateur operators offering to assist them in preparing and filing license renewal application forms. It requests the amateur operator fill in an FCC Form 610 and send it to: Federal Licensing, P.O. Box #610, Gettysburg, Pennsylvania 17325, together with a \$35.00 fee.

I am a currently licensed Extra Class amateur radio operator and wish to be a volunteer examiner. I have never had my station or  
WOULD YOU LIKE TO BECOME A VOLUNTEER EXAMINER?  
under "The W5YI Report" Program? If so, please send a copy



# W5YI REPORT.....

Page #3

January 1, 1987

Under Section §97.13(c) of the FCC Rules, an application for an unexpired Amateur service license must be made during the license term and should be filed within 90 days, but not later than 30 days, prior to the end of the license term. Application must be made on FCC Form 610 which is available without charge from FCC Field Locations and the Consumers Assistance Branch (717) 337-1212.

The Commission emphasized that there is no fee for filing a routine application to renew a license in the Amateur service. Completed applications should be sent to: FCC, P.O. Box #1020, Gettysburg, PA 17325. The only amateur license charges authorized are (expense reimbursement) testing fees associated with the VE/VEC examination program above the Novice level.

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## MORE ON K.C. REPEATER COORDINATION

Barry Roseman, WA0LHK, of Stillwell, Kansas, takes issue with the statement by Joseph Eisenberg, WA0WRI, that he is not the proper VHF repeater coordinator for the metropolitan Kansas City area. Eisenberg is ARRL VRAC chairman. (See page 3, Dec. 1st issue.)

Roseman maintains that he accepted the appointment of the MO-KAN Council of Amateur Radio Clubs as repeater coordinator in April of 1974 predating either the existence of the Missouri Repeater Council or Kansas Amateur Repeater Council. The ARRL apparently recognizes these two groups as being the proper governing authority.

Roseman said "The MO-KAN Council has been coordinating amateur repeaters in Kansas City in a responsible manner for fourteen years and will continue to do so." He contends the Kansas and Missouri repeater councils do not have the authority to remove him and that he has the support of majority of amateur operators in the area in keeping with the requirements of §Part 97.3(aa).

"The MO-KAN Council of Amateur Radio Clubs in Kansas City is not a 'pirate' repeater council," Roseman maintains. "It is true that our listing has been deleted by the

ARRL from the past two issues of the ARRL Repeater Directory. We are listed in all previous issues to my knowledge. The reason? We believe a clear case of conflict of interest is occurring here. Many ARRL officials are personally involved in repeater coordination and they are in control of the ARRL Repeater Directory."

Roseman thinks "that the Mid-America Coordination Council is attempting to 'use' the FCC to overthrow the coordination authority of the MO-KAN Council of Amateur Radio Clubs."

In a letter to the FCC's Ray Kowalski, Roseman said that "The unfortunate aspect of this situation is that there really are such things as 'pirate repeater councils' that set-up shop overnight and seek to disrupt legitimate repeater operations. When somebody seeks to use the FCC to resolve a local political problem; it can only dilute your efforts towards responsible coordination practices."

In responding to the FCC desire that local coordinators participate in a regional or umbrella entity, Roseman said that his group applied to join the Mid-America Coordination Council, Inc., on March 7th, 1986, and were refused admittance. "We certainly can not be held accountable or responsible for failing to participate in this organization."

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## HAM/COMMERCIAL SATELLITE LASHUPS....

We received a note from Wayne Green, W2NSD/1, on our writeup on the mixing of commercial satellite and amateur radio communications. Wayne said he "...discussed this several years ago with the FCC Commissioners when GTE suggested hams might be interested in using a 30 MHz spare channel on their satellite. RCA also said they had some spare space. The Commissioners said they could see no problem with using a commercial satellite for relaying amateur radio."

"My concept was for repeater groups to organize up/down links in major cities and feed them via 450 MHz relays from local repeaters. In this way any ham could make a contact via satellite."

"The idea as to set up a long distance



January 1, 1987

emergency communications system which would work anywhere in the U.S. - whether the low bands are open or not. No emergency system is of value unless it's in regular use, so the Commissioners thought this was a first rate system which could be set up and would provide very valuable communications."

"The satellite owners have to keep spare channels just in case something goes wrong. If there's nothing doing on them they have to pay their own people to keep them tested, so it would save them some money if something like the amateur service were using the spare channels. We would not have priority except in actual emergency times, but these spare channels are almost never needed."

"It seemed like a good approach to me. The problem is that to make something like this happen some ham somewhere has to do the work - make the contacts and contracts - organize the up/down links - set up the whole communications plan, protocols and rules. ...I see a big lack of hams devoting major energy to the promotion of amateur radio."

### "GOOD AMATEUR PRACTICES" GROUP?

Don't be surprised if an Amateur Ethics Committee is created with the FCC supporting their recommendations to the point of issuing sanctions against those who violate §Part 97.78 decreeing that "good amateur practice" should be observed by all licensees. At least one Commissioner is unhappy with the current direction and level of cooperation among amateur radio operators.

Florida amateur, Henry Luhrman, W4PZV, sent a letter to Commissioner Dawson protesting the activities of a group known as the "Black Sheep Net" who operate domestically in the so-called "DX window" - 3.790-3.800 MHz. Dawson responded to Luhrman's letter and sent copies of her response to members of the net. Some answered her letter. In any event, the QRM went away - at least for a while. It is now reported back.

Dawson wants amateur themselves to spell out what they feel good amateur practice consists of. Jack Richards, Dawson's Legal Assistant, called in ARRL Washington Coordinator, Perry Williams/W1UED last month to

discuss the beefing up of §Part 97.78 and the possible establishment of an amateur ethics group which would discuss and decide on proper amateur operation. This would then be used as a standard by FCC monitoring stations and the Volunteer Monitoring Service.

Williams said that the concept needed the right kind of support from the FCC. He said FCC Field Office personnel should make more of an effort to work with local amateur auxiliary groups, interference committees, and so forth. He added "The Private Radio Bureau should take the best case they have got built on Volunteer Monitoring evidence before an Administrative Law Judge. Until those things happen, the volunteers are not going to feel that the FCC is serious about using their help to clean up problems in the Amateur Service."

Richards also said that Dawson would like to write a "guest editorial" ....for QST to stimulate amateur involvement."

Another interesting comment from Perry's report on his visit to Dawson's office is the Commissioner's are now beginning to feel that obscene and indecent speech are not necessarily always protected under the First Amendment.

### PLANS UNDERWAY FOR PAN AM GAMES....

The 1987 Pan American Games will open with ceremonies at the Indianapolis Motor Speedway on August 8, 1987. There will be 286 individual sports events taking place across Indiana over the next 15 days. Amateur radio will be very much in evidence. Jack Burlison, W9DGN, head of the Indiana State Police Communications Department is heading up the amateur radio effort. Packet radio circuits will even be used. There is a possibility of using up to five portable ATV transmitting stations which can be taken to a site when requested. A traffic committee will coordinate the handling of messages from participants to their homes around the globe. It could involve as many as 500 amateurs working part time who will be required to undergo a background investigation before being allowed to participate. Security seems to be the predominant factor in the planning of communications for the games.



# W5YI REPORT.....

Page #5

January 1, 1987

## AMATEUR RADIO CALL SIGNS....

issued as of the first of December 1986.

Radio District:	Gp."A" Extra	Gp."B" Adv.	Gp."C" Tech/Gen	Gp."D" Novice
0	NV0Z	KE0JK	N0HPE	KA0YXI
1	NI1J	KC1BF	N1EMS	KA1PEV
2	NU2X	KD2WX	N2GUY	KB2BYC
3	NE3M	KC3ZY	N3FFW	KA3QHL
4	AA4XT	KK4DN	N4PDR	KB4VOH
5	WT5H	KF5SZ	N5JZH	KB5BGX
6	WZ6R	KI6NK	N6OOH	KB6OZK
7	NY7N	KE7VY	N7ITZ	KA7ZZO
8	NU8P	KE8IT	N8HXP	KB8AOV
9	NO9Z	KE9AZ	N9GEW	KA9WHX
N.Marina Is.	AH0E	AH0AC	KH0AI	WH0AAG
Guam	AH2Y	AH2BM	KH2CG	WH2AKK
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Palmyra/Jarvis	AH5A			
Hawaii (*)		AH6HN	NH6HT	WH6BMS
Kure Is.			KH7AA	
Amer.Samoa	AH8C	AH8AC	KH8AD	WH8AAW
Wake Wilkes Peale		AH9AC	KH9AD	WH9AAF
Alaska (*)		AL7IM	NL7JM	WL7BLY
Virgin Is.	KP2Q	KP2BA	NP2BY	WP2AFG
Puerto Rico	WP4V	KP4LP	WP4AY	WP4GKR

(\*) NOTE: All Group "A" call signs have been assigned in Hawaii and Alaska. Group "B" 2X2 format call signs now being assigned to Extra Class amateurs.

## NOVEMBER AMATEUR LICENSING STATS....

	November 1985		1986
New First Time Amateurs:	910		1,404
Novice Class Upgrading:	498		698
Technician Class Upgrading:	239		262
General Class Upgrading:	240		300
Advanced Class Upgrading:	171		190
Total Amateurs Upgrading:	1,148		1,450
Amateurs Failing to Renew:	1,296		782
Change in Amateur Census:	-386		+622
November 1985%	1986%		
Extra Class	9.3	9.8	38,305
Advanced	23.6	23.3	97,781
General	28.3	27.6	117,082
Technician	20.2	20.4	83,387
Novice	18.6	18.9	77,087
Month End Census:			413,642
Club/Military/RACES:			2,753
Total Active Stations:			416,395
Percentage Increase:			+1.3%

[Source: FCC, Licensing Facility, Gettysburg]

## HAM QUESTION POOL ASSISTANCE NEEDED

Gordon Girton/W6NLG (Sunnyvale VEC) and Ray Adams/N5BAQ (Carolina ARS/VEC) are recruiting VEC leaders to assist them in the development of a common pool of questions to be used for amateur radio examinations beginning January 31, 1988.

Gordon and Ray - along with Jim Clary, WB9IHH of the ARRL-VEC will form the final Committee for Maintenance of the Question Pool. This will insure that a common question pool is used for amateur radio examinations. There are no plans to revise any of the question pools until January 1988 - except for those necessitated by FCC rules changes.

VEC's should contact Gordon Girton/-W6NLG (P.O. Box #60031, Sunnyvale, CA 94088-0031) if you are interested in being a Test Element Leader - or in assisting with development of question revisions. In addition, any amateur can submit new questions and/or revisions for existing pool questions. Remember that each VEC pool question must be prepared by a volunteer examiner of the proper class:

### Pool Question for: Shall be Prepared by:

Element 4(A) & 4(B)	Amateur Extra Class
Element 3	Extra & Advanced Class
Element 2	Extra/Advanced/General or Technician Class.

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## CONSUMER RADIO SERVICE UPDATE....

The December issue of Personal Radio Exchange, the monthly newsletter of the Ann Arbor, Michigan, based Personal Radio Steering Group, says that the FCC seems to be backing off of its Consumer Radio proposal.

Docket 86-38 proposed to dismantle the General Radio Mobile Service (GMRS) and replace it with an unlicensed low-power handheld Consumer Radio Service. It met with instant (and highly organized) opposition from GMRS users who frequent the old 8-paired channel Class A UHF-FM Citizens Radio Service.

PRSG thinks that the FCC now might propose a modified version or abandon the



January 1, 1987

Consumer Radio Service concept entirely. Action is expected by the FCC within 90 days. Another possibility is that the FCC, through "Novice Enhancement", might open up the Amateur Radio Service to wider public utilization.

- Tandy Radio Shack is no longer to be considered as being solely in the small business, education and work-at-home personal computer markets. The Gartner Group, a Connecticut research firm, predicts that Tandy will take over the corporate microcomputer needs from giant IBM in 1987! Tandy expects to have an outside sales force of 2,000 concentrating on the corporate marketplace within six months! Tandy introduced four new IBM-compatible computers last July ranging from a \$799 model aimed at the home market to a \$4,299 AT-compatible. They are now number two behind IBM with 22% of the total market!

- Our (last issue) report of the demise of the Voice of America's European service was premature. Officials now say they will retain the VOA-Europe service in its present form and save more than 50% doing it! Service will be restructured within 90 days. (\$3.2 million budget now pared to \$1.2 annually.)

- Boston public TV station WGBH, now is experimentally broadcasting extremely high quality digital radio on its UHF-TV station channel after its television programming signs off. The experiment makes use of a Sony digital audio processor to convert the audio to a digitized television signal. With the proper decoding setup, the transmission can be heard in stereo - otherwise listeners receive an analog mono version. The dynamic range is far better than that of present day compression-expansion technology and existing standard stereo FM broadcasts. There is a lot of unused spectrum available in the UHF-TV band and broadcasters want to use it before the FCC turns it over to land mobile and cellular interests.

- TV media people are naturally very concerned about who and how many are watching their programming since advertising rates are based on audience size. The TV rating business has gotten very competitive! A.C. Nielsen Co., AGB Television Research and Arbitron Ratings Company all are embarking on

electronic people counting. Statistically selected viewers will now record their viewing habits by pushing "people meter" buttons rather than keeping a diary. But viewers still must push the button. The Percy System adds a new passive element to TV rating: a heat-and-body mass sensor verifies that viewers have pushed the required people meter buttons! Rating services are worried that with four sets of ratings, all will report different numbers!

- Here's a Shocker! A controversial Electronic Birth Control gadget has been patented by a gynecologist/obstetrician that electrocutes sperm inside the uterus. The device, held in place by spring clips, has been successfully used on baboons. It is now ready for human experiments. A quarter-inch 3.3 volt battery-equipped intrauterine device, which can be left in place for up to a year, zaps sperm as they approach a woman's cervix!

- No one is talking about it, but Apple Computer has a problem with their new top-of-the Apple II line. The Apple II-GS was introduced during the World Series. An advertising agency (BBDO) leaked the story when Apple was forced to postpone its holiday advertising and marketing plans. The problem is a defective video-graphics chip resulting in a flickering screen.

- Another advertising agency (Ogilvy & Mather) is preparing high-tech advertising for home PC owners! The reason? Mediamark Research, Inc., says there are 12 million personal computer owners and 67% of them are 25-44 year old males. While 15% of the adult population are professionals, managers or executives, 30% of the PC owners hold such positions. ...More than double the national average graduated from college. ...Two thirds have household incomes exceeding \$35,000. But they are also hard to reach since they watch their CRT's more than television! Firms such as Buick, Chevrolet, Ford, Equitable Life Assurance and others are mailing personalized floppy diskettes to known IBM and Apple computer owners!

- Be on the lookout for your "SmartCard" - wallet sized plastic with embedded micro-processor and memory chips! The U.S. is just now getting smart-card tests underway. Visa, MasterCard and home banking will be among the first to use the technology. That is, if



# W5YI REPORT.....

Page #7

January 1, 1987

Visa and M/C can agree on standards! France and Japan have standardized smart-cards in wide use now. The French have 7 million telephone chip cards and a million bank credit cards already in circulation and by government directive, all French retailers must have smart-card readers in place by 1990! University of Paris students carry their embedded transcripts on pocket-size plastic. Every Japanese bank, retailer and government agency is involved in smart-card tests. There is even a Japanese taxi-meter debit card!

● Television is 50 years old! We all take it for granted. Do you know that many countries in the world still don't have it? Television didn't come to South Africa until 1976, Sri Lanka in 1979, Burma and Swaziland in 1980, Mozambique in 1982 ...Nepal in 1984! Papua, New Guinea, just got television last month! Sometimes TV is commercial (like in the U.S.), sometimes state-controlled (Japan, Australia, Canada, Europe). The major U.S. networks have seen their share of viewers drop from 85% in 1980 to 73% in 1985. Cable is now in more than half of American homes where advertising rates are lower than those of the networks. There are some 300 independent TV stations now, ...only 27 existed in 1960. Australian billionaire Rupert Murdoch is trying to organize them into the Fox Network. He got around FCC rules prohibiting foreigners from owning more than 20% of an American TV company by applying for U.S. citizenship! Murdock also owns 83% of Sky Channel, the European satellite delivered entertainment channel.

● The National Association of Broadcasters has joined the rival National Cable Television Association is asking the FCC to reconsider its requirement that cable operators provide A/B switches so TV viewers can change between cable and broadcast channels. The NAB/NCTA petition will ask the FCC to give local cable operators the option of carrying local broadcast stations or installing the A/B switches. The new "must-carry" rules expire in five years at which time (even with the required A/B switches) local broadcasters fear cable users will not install antennas to receive their signals. NCTA said A/B switches "will go unused" and will add to signal leakage. Cost to the cable industry to install the controversial switches is pegged at \$1 billion!

● Defunct SPACE (formerly representing the home dish industry) and DBSA (Direct Broadcast Satellite Association) have completed their merger into the Satellite Broadcast & Communications Association. SBCA will align itself more towards the cable and direct-broadcast-satellite industry than with the backyard dish user. Satellite programmers such as HBO, Showtime and Turner Broadcasting now sit on SBCA's Board of Directors.

● Now it is the cable industry that is concerned about the proliferation of shopping nets. Cable operators originally welcomed shopping services to supplement their entertainment programming. Now they are worried that the public will think of them as nothing but a video flea market. There are now some twenty plus shopping networks on cable TV! Even so, they are big business! Cable Value Network expects to sell \$600 million in 1987, HSN could rake in \$1 billion!

● In an effort to help broadcast stations qualify for the current low tax rate on capital gains before the revised tax rates go into effect on January 1, the FCC agreed to the sales of 10 television and 156 radio stations the day after Thanksgiving! Sales are not final until after a 30-day comment period, so FCC worked overtime to get the job done in November.

● You don't hear much about Zenith's Personal Computers, (mostly because they don't advertise much) but they are doing well in the marketplace! When Zenith acquired Heath Company in 1979, computers weren't selling well. The December 8th issue of Business Week says that Zenith has built its sales into a \$500 million business, making it the second largest producer of IBM-compatible PCs in the world. The U.S. government owns more Zenith computers than any other kind!

● Look for a big anti-porn campaign by the government against home video and cable TV. The U.S. Justice Department's legal assault is based on 1984 cable TV laws which give the government an option to develop obscenity standards for cable. Main thrust will be against criminal elements involved in the production and distribution of pornographic material. One source said the Justice Department could assign the FBI to keep tabs on cable TV and video programming.

FCC-Extra CL Study Guide \$5.00 + \$1.50 postage  
FCC \$Part 97 Rules Book \$4.00 + \$1.50 postage

applicants and VE's. All materials contain all questions, answers and discussion why answer is right!

SHIPPED FIRST CLASS SAME DAY!

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as 75207



January 1, 1987

● Forget about entering the video store business. The firm that makes the most ATMs (automatic teller "money" machines) in the U.S., Diebold, Inc., has developed "Movie Machines" that automatically dispense video-cassettes. They will be everywhere in 1987 ...office buildings, convenience stores, ...hospitals. Each Movie Machine holds 374 tapes which can be sold or rented. California gets the first of 5,400 machines next month!

● A new VHS video tape marking technology has emerged from Japan called "CTL." It allows you to easily mark and find dozens of points on a tape. A new standard indexing track will be built into most VHS tapes which must be played on a CTL equipped VCR.

● Expect a Report and Order from the FCC on RF Lighting at frequencies below 30 MHz by March 1987 when interference limits will be set. There seems to be agreement on the need for guidelines. At issue is how these limits should be determined. At frequencies below 30 MHz, conduction level problems are more prevalent than those of field strength.

● The FCC has set April 2 as the date they will begin collecting radio license fees. While amateur radio is exempt from fees, land mobile is not. The Commission is apparently having trouble determining the fee collection role of private land mobile radio frequency coordinators. All business band applications must go through them first.

● Danville Community College's Division of Engineering Technologies, Danville, Virginia, is offering "for credit" classes in amateur radio. Courses (including Morse code training) cover Novice, Technician, General, Advanced and Extra Class license preparation. Our VE team headed up by Mack Wayne Edwards, K4AUG, handles the testing.

● Just what we need! Another cable shopping addition debuts January 1st. The Sweepstakes Channel will offer discount magazines, books and audio cassettes for 18 hours a day on RCA Satcom IV (transponder 12.) Viewers will be able to "meet" the authors and critics and subscribe to publications through an 800 number. Cable companies will get a 5% commission plus advertising time plus an opportunity to buy equity in TSC. Eighty magazines (including TV Guide and Newsweek) have already agreed to participate.

● Computer Malpractice is a relatively new term and one of the most rapidly developing areas of law ...the responsibility software developers have to their customers. Suits are being filed against writers of poorly designed computer programs and courts are routinely finding software developers "professionally negligent" and awarding damages. All professionals are required to perform their duties and obligations with the skill and care ordinarily shown by other professionals. The key word is "professional". Traditionally programmers have been considered skilled tradesmen. With the growth of professional societies, specialized degree programs and accrediting organizations, the field of data processing has taken on an upgraded status.

### "OSCAR ARCHIVES" FORMATION ANNOUNCED

To mark the 25th Anniversary of the launch of OSCAR-1, members of Project OSCAR User's Group formally announced the establishment of the OSCAR Archives. Since the concept of OSCAR was first considered, a tremendous amount of notes, photographs, records, papers and other important documents related to OSCAR have been accumulated.

Initial deposits into the archives include the data records from OSCAR-2 (from Bill Walters/W6MKE), the OSCAR-8 command module used by Bud Schultz/W6CG (donated by AMSAT-NA), records of OSCAR-1 from Chuck Townes/K6LFH and numerous historical slides from Norm Chalfin/K6PGX. Storage containers for the volumes of data and photographs are in the process of being constructed.

Negotiations are underway with Foothill College for a secure location to place the entire OSCAR archive collection. The decision to contact Foothill College is the result of their continuous support for OSCAR which dates back to the early days of the program. Dr. Robert Smithwick/W6JZU, an original member of the Foothill Board of Trustees (and the current Board president) has always provided OSCAR his positive support.

Contact: Ross W. Forbes/WB6GFJ, Director of User Services/Project OSCAR at (415) 948-5000 (9 a.m. - 9 p.m. PST) for further information. (P.O. Box #1, Los Altos, CA 94023)



ate (optional) is also available for \$1.00. Details and accreditation materials will be sent to you within a two week period. in making, preparing or distributing amateur radio equipment or license preparation materials. My age is at least 18 years old."

# W5YI REPORT.....

Page #9

January 1, 1987

● 73 Magazine joins the League in the DX Country business by announcing their "DX Dynasty Award" in their January 1987 issue. There are just under 400 countries on the new DXD countries list, but still climbing. (Countries from other IARU awards programs were added to the ARRL DXCC list.) QSL cards are not required for the DXD Award - although "73" reserves the right to review logs should it be necessary. Only DX contacts made after January 1, 1987, are eligible. The basic DXD Award will be issued for 100 countries, endorsements for 150, 200, 250, 300, 350, 375 and 400 countries. (\$6.00 fee for basic award, additional endorsements: \$2.00)

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## AMATEUR TEST GENERATION SOFTWARE....

The Council for Amateur Radio Examining (CARE) is preparing another CARE package. CARE is the umbrella organization that most VEC organizations belong to.

This time it is a software package that permits volunteer examiners to generate amateur radio written examinations for the Element 2 (Novice), 3 (Technician/General), 4A (Advanced) and 4B (Extra Class) levels.

As provided in §Part 97.27(d) effective January 1, 1987, VE's as well as VEC's are authorized to design amateur radio written examinations. The software will generate a properly constructed examination based on the following algorithm which (at present) every VEC utilizes:

Topics:	Element	2	3	4A	4B
FCC Rules:		7	9	6	8
Operating Practices:		1	6	1	4
Radio Wave Propagation:		1	6	2	2
Amateur Radio Practices:		3	9	4	4
Electrical Principles:		3	4	10	6
Equip.Circuit Components:		1	3	6	4
Practical Circuits:		1	2	10	4
Signals & Emissions:		1	4	6	4
Antennas & Feed Lines:		2	7	5	4
Total Questions:		20	50	50	40

The software, written in AT&T's compiled "C" language, can be run on IBM PC/-AT/XT microcomputers as well as any IBM clone. One test element to a 5¼" floppy disk sells for \$29.95 from: CARE, P.O. Box #688,

Glenview, Illinois 60025. The program will generate a properly designed random multiple choice answer test.

The FCC question pool and ARRL multiple choice answers are used. Provisions are also made in the software to flag certain questions that a VE does not want to appear on any random generated test. A VE can even "hand pick" his own (non-random) examination for specific purposes (such as examinations for the handicapped where you would not want schematic diagrams to appear on an examination.) Volunteer examiners still must supply a sheet with all of the circuit diagrams on it to candidates taking tests. The software does not generate the schematic as part of the printed test.

The software was written by Roger H. Wayman, W9TYT, owner of Diamond Systems, Inc. in Chicago, Illinois. Roger also markets amateur radio educational software (novice, technician, general, advanced and extra amateur radio courses) to Heathkit using the same amateur question pool data base. The test generation program outputs to a printer, where the Heathkit amateur radio courses output to a CRT screen. The test generation program is available to anyone - candidates, VE's or VEC's.

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Bill Pasternak, WA6ITF, sent us the following news release:

## THE NEW WORLD OF AMATEUR RADIO

...is the working title of the new ARRL videotape presentation authorized by the ARRL Board of Directors last July as a replacement for the popular "World of Amateur Radio."

ARRL Executive Vice President Dave Sumner, K1ZZ, and Roy Neal, K6DUE, who has produced many films and tapes for the American Radio Relay League and for NBC news, met in Hartford, CT, on December 6th and reached agreement on a fast-paced "magazine" format for the video which will go into production early in 1987.

The program will run about 30 minutes and will be made available to broadcasters,



cable television and for showing to the public. It will emphasize the fun and excitement of operating amateur gear whenever possible depicting the new and young generation of hams in action.

The production will include Forrest Oden, N6ENV, as Producer/Editor, Bill Pasternak, WA6ITF, will be Technical Supervisor and Field Producer. Both have worked on previous ARRL presentations, including "Amateur Radio's Newest Frontier" and "SAREX - the Shuttle Amateur Radio Experiment."

The producers have already begun a search for interesting stories, people and professional production assistance. The search, like the television program itself, is world-wide in scope. Assistance from the Amateur Radio industry is also being sought.

If you have any suggestions or material, or if you wish to volunteer to work on this project, please write to: Bill Pasternak, WA6ITF, TNWOAR, 28197 Robin Avenue, Sausalito, California 94965 or via MCI Mail to BPASTERNAK.

## ROBOT RESEARCH/FROM RAGS TO RICHES

John P. Stahler, WB6DCN, of San Diego, California, recently received a phone call from the National Aeronautics and Space Administration. They wanted to purchase some of his Robot Research, Inc., slow scan video gear that sends and receives television pictures via regular radio or telephone lines.

NASA contacted John, 29, because several of the agency's staffers are ham radio operators. Robot Research had donated the equipment (valued at around \$20,000) to NASA for use by ham astronauts aboard shuttle missions. It was enough to convince a Los Angeles firm to place a \$750,000 order with Robot Research for the same equipment. It was the largest single order in the company's history!

A recent writeup in the December 9th San Diego Tribune details how one Robot Research founder had retired in 1981 and a second had died in August 1984. The death led to the revelation that the company had

been losing money steadily for the previous four or five years. "On the day the founder died, an \$8,000 payroll was due and the company had only \$1,200 in the bank." It turned out that the founder was personally funding the company without anyone knowing about it!

Sales had fallen 40% from the 1980 high of \$1.8 million. The company was virtually bankrupt. Young John was named president. At the time he was chief engineer and owned 10% of the company's stock which had been given him as a bonus over the previous two years. While he wanted to buy the company, the heirs wanted him to turn the company around so the firm would become attractive to other potential buyers. Although he turned in his resignation, he was talked into staying.

He ultimately bought the company in February 1985 in a deal financed partly by his own money and partly by the deceased owners estate. Stahler studied electrical engineering in college, but never finished.

In his first two years at Robot Research, Stahler designed a terminal keyboard for amateur operators which brought in some \$2 million in sales before competition squeezed him out. He set out to work on new products. The space shuttle slow scan video transceiver was one. He also designed a unit for the medical profession that transmits X-rays and CAT scans over telephone lines and a teleconferencing system that allows televised conferences over regular phone lines.

The security business appears to be Robot Research's biggest market, however. Stahler designed a system of cameras that allows owners to call their store and actually see what is going on via a phone/video lashup. Security products accounted for 40% of sales last year.

Robot Research's \$1.4 million in sales for the fiscal year ending October 31st were their most profitable. John expects to hit \$2.5 million in sales next year, then \$4 million ...and \$6 or \$7 million in 1988. Then he will decide whether or not to go public. Not bad for a 20 year old ham operator that joined Robot Research in 1978 simply because he was intrigued with electronics!